

REMARKS

Claims 1-31 are currently pending in the application. Claims 1, 4, 5, 8, 13, 16, 18, 26, 27, 28, 29, and 30 have been amended herein.

Claims 4, 8, and 13 have been objected to because of certain informalities. Each of these claims has been amended as suggested by the examiner. With respect to the informality noted with respect to claim 13, a similar informality has been noted with respect to each of claims 5, 26, and 29. These claims have been amended to address this informality.

Claims 1, 7-9, 16, and 30-31 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,366,681 (hereinafter referred to as "the '681 patent") to Hutchins in view of U.S. Patent No. 6,421,610 (hereinafter referred to as "the '610 patent") to Carroll, et al.

Independent claim 1 is directed to a method for producing agricultural information on an area of interest. The method comprises the steps of: (a) receiving map information that defines an agricultural area of interest for which agricultural information is desired; (b) receiving remote imaging data on the agricultural area of interest; (c) processing, using data related to an agricultural scene-object, the remote imaging data to produce reflectance factor data on the agricultural area of interest; and (d) using the reflectance factor data to produce a map of the agricultural area of interest that provides agricultural information. Reflectance factor is defined in equation 6 and in equations 7A and 7B of the application and includes factors relating to: spectral irradiance of the sun at the top of the atmosphere; band transmittance; solar zenith angle; diffuse sky radiance; transmittance of the atmosphere between the surface of the earth and the sensor; total spectral radiance measured by the sensor; and spectral radiance attributable to the scattering of electromagnetic radiation by gases and other materials in the atmosphere between the sensor and the surface of the earth.

The '681 patent is directed to a method for analyzing multi-spectral data for extraction of chlorophyll content. While the '681 patent does disclose a method for determining an amount of

chlorophyll in a geographic area using multi-spectral data, there is no teaching or suggestion in the patent of a method for processing remote imaging data to produce reflectance factor data or producing reflectance factor data using an agricultural scene object, as set forth in equations 7A et seq. in the application. Further, the '681 patent also does not teach or suggest the use of reflectance factor data to produce a map of the agricultural area of interest. The '681 patent also does not teach or suggest the combination of steps set forth in claim 1. The '610 patent does not remedy any of the deficiencies noted with respect to the '681 patent.

Based on the foregoing, the applicant respectfully asserts that independent claim 1 is allowable.

Claims 2-9 are dependent claims that each depend, either directly or indirectly, from independent claim 1. Consequently, each of these dependent claims is allowable for the same reasons that independent claim 1 is allowable. Further, each of the dependent claims may be allowable for other reasons, and the applicant expressly reserves the right to assert any such reasons in the future.

Independent claim 16 is directed to a method for producing agricultural information on an area of interest. The method comprises: (a) receiving map information that defines an agricultural area of interest for which agricultural information is desired; (b) receiving remote imaging data on the area that is associated with a first time; (c) calibrating, using an agricultural scene-object, the remote imaging data to produce reflectance data for the first time; (d) using the reflectance data to produce a first map on the area of interest according to a selected index; (e) repeating the steps of receiving, calibrating, and using with respect to remote imaging data associated with a second time to produce a second map according to the selected index; and (f) using the first and second maps to produce a change map that shows the change in the index between the first time and the second time.

The '681 patent does not teach or suggest a method for processing remote imaging data to produce reflectance factor data or producing a reflectance factor data using an agricultural scene object. Consequently, the '681 patent also does not teach or suggest using reflectance factor data to produce a first map of an agricultural area of interest that is associated with a first time, using reflectance factor data to produce a second map of an agricultural area of interest that is associated with a second time, or using the first and second maps to produce a change map that

shows the change in an index between the first time and the second time. The '610 patent does not remedy any of the deficiencies noted with respect to the '681 patent.

Based on the foregoing, the applicant respectfully asserts that independent claim 16 is allowable.

Claim 17 is a dependent claim that depends from independent claim 16. Consequently, claim 17 is allowable for the same reasons that independent claim 16 is allowable. Further, claim 17 may be allowable for other reasons, and the applicant expressly reserves the right to assert any such reasons in the future.

Independent claim 30 is directed to a method for transporting agricultural information on an area of interest towards an entity. The method comprises conveying, over a portion of computer network, a map that provides agricultural information on the area of interest. The map includes agricultural information that has been produced using reflectance factor data and one of: data related to an agricultural scene-object, a formula for producing a GVI, and a formula for producing an SZI.

The '681 patent does not teach or suggest the producing of a map using reflectance factor data. Consequently, the '681 patent also does not teach or suggest conveying such a map over a computer network. Likewise, the '610 patent does not teach or suggest the conveying of such a map over a computer network.

Based on the foregoing, the applicant respectfully asserts that independent claim 30 is allowable.

Claim 31 is a dependent claim that depends from independent claim 30. Consequently, claim 31 is allowable for the same reasons that independent claim 30 is allowable. Further, claim 31 may be allowable for other reasons, and the applicant expressly reserves the right to assert any such reasons in the future.

Claims 10-12 and 18-29 stand allowed.

With respect to the reasons for the indication that independent claim 10 is allowable, the applicant asserts that independent claim 10 is further allowable because the cited prior art does not teach or suggest a processing step that produces reflectance factor data on an agricultural area of interest. Further, the cited prior art does not teach or suggest the step of using reflectance

factor data to produce a GVI map according to the equation set forth in the claim. The cited prior art also does not teach or suggest either of these steps in combination with one another or in combination with the other steps set forth in the claim. Claims 11 and 12 are dependent claims that each depend, either directly or indirectly, from independent claim 10. Consequently, each of these dependent claims is allowable for the same reasons that independent claim 10 is allowable. Further, each of the dependent claims may be allowable for other reasons, and the applicant expressly reserves the right to assert any such reasons in the future.

With respect to the reasons for the indication that independent claim 18 is allowable, the applicant notes that the claim has been amended such that the using step operates upon the calibrated data to produce the GVI map. Further, the applicant asserts that independent claim 18 is further allowable because the cited prior art does not teach or suggest a calibrating step to produce calibrated data on the agricultural area of interest, the use of the calibrated data to produce a GVI map based on reflectance factor data on the agricultural area of interest, or the claimed combination of steps. Claims 19-24 are dependent claims that each depend, either directly or indirectly, from independent claim 18. Consequently, each of these dependent claims is allowable for the same reasons that independent claim 18 is allowable. Further, each of the dependent claims may be allowable for other reasons and the applicant expressly reserves the right to assert any such reasons in the future.

With respect to the reasons for the indication that independent claim 25 and dependent claims 26-28 are allowable, the applicant notes that claim 26 is not dependent from independent claim 25. Claim 26 is an independent claim. Claims 27 and 28 are each dependent claims that have been amended so as to depend from independent claim 26. Further, the applicant asserts that independent claim 25 is further allowable because the cited prior art fails to teach or suggest the step of using the remote imaging data to produce a GVI map in combination with the other steps set forth in the claim.

With respect to the reasons for the indication that independent claim 26 is allowable, the applicant notes that the claim has been amended such that the using step operates upon the calibrated data to produce the SZI map. In addition, claim 26 has been amended to more clearly define certain elements of the SZI equation. Further, the applicant asserts that independent claim 26 is further allowable because the cited prior art does not teach or suggest a calibrating step to

produce calibrated data on the agricultural area of interest, the use of the calibrated data to produce a SZI map based on reflectance factor data on the agricultural area of interest, or the claimed combination of steps. Claims 27 and 28 are dependent claims that each depend, either directly or indirectly, from independent claim 26. Consequently, each of these dependent claims is allowable for the same reasons that independent claim 26 is allowable. Further, each of the dependent claims may be allowable for other reasons, and the applicant expressly reserves the right to assert any such reasons in the future.

With respect to the reasons for the indication that independent claim 29 is allowable, the applicant notes that the claim has been amended to show that remote imaging data is used to produce the soil zone index map of the agricultural area of interest and to more clearly define certain elements of the SZI equation. Further, the applicant asserts that independent claim 29 is further allowable because the cited prior art fails to teach or suggest the step of using the remote imaging data to produce an SZI map in combination with the other steps set forth in the claim.

Claims 2-3, 5-6, and 17 are objected to as being dependent upon a rejected base claim. None of these claims have been rewritten in an independent form that includes all of the limitations of the base claim and any intervening claims.

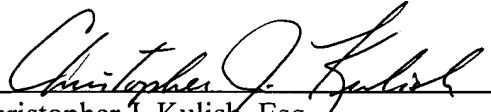
Further, the Action indicates that claims 13-15 would be allowable if the objection to claim 13 is addressed. Claim 13 has been amended to address the objection. In addition, claim 13 has been amended to more clearly define certain elements of the SZI equation. Claims 14 and 15 are dependent claims that each depend, either directly or indirectly, from independent claim 13. Consequently, each of these dependent claims is allowable for the same reasons that independent claim 13 is allowable. Further, each of the dependent claims may be allowable for other reasons, and the applicant expressly reserves the right to assert any such reasons in the future.

No claim related fees are believed to be due with this response. In the event any such fees are due, please debit Deposit Account 08-2623.

The application now appearing to be in form for allowance, reconsideration and allowance thereof is respectfully requested.

Respectfully submitted,

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Date: September 16, 2005

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